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These values have been used whenever required; but, as a check on the accuracy of Lalande's places, I have thought it desirable to make an additional comparison by substituting the Groombridge Catalogue for Fedorenko's Lalande. The Groombridge N.P.D. of 2276 is apparently more than four seconds in error, as may be observed below; the proper motion in N.P.D. of this star deduced from this second comparison is therefore too small. The remaining values are almost identical with those determined from the comparison with Lalande. The following are the resulting annual proper motions, using the Groombridge and Greenwich (1875) places only:—

	P.M. in R.A. s	P.M. in N.P.D. ″
Groombridge 2275	−0·064	−0·12
„ 2276	−0·055	−0·10

The following differences between the R.A. and N.P.D. of the two stars are taken from the mean places given in the respective catalogues:—

Catalogue.		Δ R.A. s	Δ N.P.D. ″
Fedorenko's Lalande	(1790)	12·50	0·0
Groombridge	(1810)	12·66	−5·1
Schwerd	(1828)	12·80	−0·4
Struve	(1830)	12·70	−0·8
Radcliffe	(1845)	12·80	−2·9
Redhill	(1855)	12·80	−4·4
Greenwich	(1875)	12·85	−4·6

Kidbrooke, Blackheath,
1877, *October* 22.

Note on the supposed Physical Association of Groombridge 3477 *and* 3511. By E. Dunkin, Esq. F.R.S.

In M. Flammarion's paper, "Sur un système stellaire en movement propre rapide" (*Comptes Rendus*, No. 8, August 20, 1877), he has exhibited what seems to be a remarkable instance of two stars, separated by more than six minutes of right ascension and nearly ten minutes of polar distance, travelling apparently together in space in the same direction with almost equal proper motions. Assuming that the proper motions employed by him are correct, he concludes that the association of these stars, one of which is a close double, forms a *stellar system* resembling in a great measure the stars 36 *Ophiuchi* and 30 *Scorpii*, which are separated as much as 12′ 21″ in a great circle, but have a common proper motion of some magnitude.

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Perhaps I may be permitted to remark that a few years ago the large proper motion in R.A. of one of the stars in question, Groombridge 3511, inserted in the British Association Catalogue, appeared to me to be much too great, and consequently a new value was determined by comparing the Groombridge place with that observed in recent years at Greenwich. This new value has been referred to in a footnote on page 16 of the annual star Catalogue in the volume of *Greenwich Observations* for 1871 as follows:—"The proper motion, $+0^{s}\cdot049$, adopted for this star is determined from a comparison of the R.A. in Groombridge's Catalogue with the R.A. from Greenwich observations made between 1871, October 17, and 1873, March 27. The value, $+0^{s}\cdot119$, inserted in the British Association Catalogue, appears to be erroneous." A more recent comparison of the Groombridge and Radcliffe places with the observations made at Greenwich from 1871 to 1875 gives respectively for the annual proper motion in R.A. $+0^{s}\cdot048$ and $+0^{s}\cdot053$. To these I add another determination from recent Greenwich observations only, from four made in 1860 and 1861, and seven made since the beginning of 1871. The result is remarkably accordant with the others, though the interval is only twelve years.

	Annual Proper Motion in R.A. s	Annual Proper Motion in N.P.D. ″
Groombridge with Greenwich (1872)	+0·048	−0·01
Radcliffe „ „	+0·053	+0·07
Greenwich (1860–61) „	+0·049	+0·05

The means of these values are respectively $+0^{s}\cdot050$ in R.A. and $+0''\cdot043$ in N.P.D.

The evidently erroneous values, $+0^{s}\cdot119$ and $-0''\cdot10$, given in the British Association Catalogue having been employed by M. Flammarion in his investigation, his conclusions respecting the probable physical association of these two Groombridge stars will require some reconsideration.

Kidbrooke, Blackheath,
1877, *October* 30.

Note upon the Proper Motion of Groombridge 3511.

By Prof. T. H. Safford.

The supposed proper motion of the star Groombridge 3511

$$+0^{s}\cdot119 \quad \text{and} \quad +0''\cdot10$$

in Right Ascension and Declination respectively, as given in the British Association Catalogue, is derived from the comparison of

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